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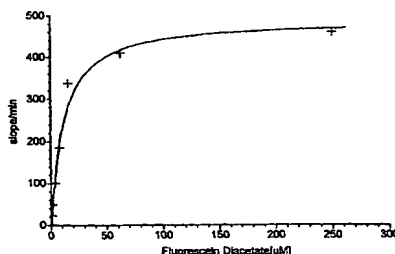
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(54) Title: COMPOSITIONS AND METHODS OF THERAPY FOR CANCERS CHARACTERIZED BY EXPRESSION OF THE TUMOR-ASSOCIATED ANTIGEN MN/CA IX

Fluorescein Diacetate $\xrightarrow{\text{CA IX}}$ Fluorescein + 2 Acetate

Fluorescein: Ex.=485nm, Em.=520nm

FDA Km determination, Km = 11.5uM



(57) **Abstract:** Compositions and methods useful in inhibiting proliferation of CA IX + preneoplastic or neoplastic cells in a mammal are provided. The compositions are antagonist anti-CA IX antibodies and other inhibitory agents that target carbonic anhydrase activity of CA IX on these cells. The antagonist anti-CA IX antibodies or antigen-binding fragments thereof are specifically reactive with an inhibitory epitope of CA IX or biologically active variant thereof. Formation of an antibody-antigen complex between the antagonist anti-CA IX antibodies or antigen-binding fragments thereof and the respective inhibitory epitopes results in inhibition of carbonic anhydrase activity of CA IX or biologically active variant thereof. Other small molecule agents that inhibit carbonic anhydrase activity of CA IX or biologically active variant thereof and screening assays for identifying such agents are also provided. The antagonist anti-CA IX antibodies, antigen-binding fragments thereof, and other CA IX inhibitory agents identified herein are useful in the treatment of cancers characterized by the expression of the CA IX tumor-associated antigen.



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